Help-seeking attitudes and distress disclosure among Syrian refugees in Germany and German Residents

Pascal Schlechter [1, 2]

Svea Kamp [1]

Katharina Wanninger [1]

Judith Knausenberger [1]

Ullrich Wagner [1]

Paul O. Wilkinson [2]

Laura Nohr [1]

Jens H. Hellmann [1]

[1] University of Münster, Germany

[2] University of Cambridge, UK

Word Count: 5,288 words [main text]

Correspondence concerning this article should be addressed to Pascal Schlechter, Email: ps798@cam.ac.uk, phone: +49(0)251-83 31391.

Funding
The study was funded by SAFIR Münster.

Abstract

Many refugees experience a wide range of mental health problems, but typically use mental health services less often than settled residents. Largely, practical constraints like limited access to mental health care and language barriers account for this mismatch. Little is known about psychological aspects explaining this difference in mental health service usage like attitudes toward psychological help-seeking and the disclosure of distress. The present study compares German residents' and Syrian refugees' attitudes toward seeking professional psychological help (total $N = 384$). Refugees reported more depressive symptoms and functional impairment than residents. Crucially, refugees also held more negative attitudes toward professional psychological help-seeking than residents. These group differences on attitudes were to a large part mediated by distress disclosure. We conclude that it is important to achieve a thorough understanding of how to address help-seeking attitudes and to encourage distress disclosure to promote treatment of mental health issues among many refugees.

[150 words]

Keywords: refugees, Syrians, mental health care, help-seeking, distress disclosure

Significance of the Scholarship to the Public

Syrian refugees who fled to Germany reported more negative attitudes toward seeking professional psychological help than German residents despite refugees experiencing more depressive symptoms and reporting more functional impairment. These differences were to a large part explained by a lower tendency to disclose distressing information among Syrian refugees as compared to German residents. Accordingly, it appears vital to arrive at a better understanding of cultural factors that contribute to this mismatch, and to encourage psychological help-seeking.

Help-seeking attitudes and distress disclosure among Syrian refugees in Germany and German Residents

Since the outbreak of the Syrian civil war in 2011, more than 11 million Syrians were forced to leave their homes as a consequence of having experienced or anticipated potentially traumatizing events (UNHCR, 2018). Of these Syrians, approximately 5.5 million individuals crossed an international border, which is an inherent part of the UNHCR's definition of who is a refugee, and around 6.3 million are considered internally displaced people. While most Syrian refugees have fled to immediate neighboring countries, more than 700,000 Syrian refugees have arrived in Germany since 2015 (UNHCR, 2018). Syrians come from diverse ethnic and religious backgrounds with 21 million citizens, including Syrian Arabs, Kurds, and Assyrians among others (World Health Organization, n.d.). The largest ethnic group are Syrian Arabs and the largest religious group are Sunnis, followed by Christians. Most of the Syrian refugees who arrived in Germany are males between 18 and 34 years (Juran & Broer, 2017). Before their displacement, many refugees have experienced war, persecution, torture, or other human rights violations increasing the risk for mental health problems (Hassan, Ventevogel, Jefee-Bahloul, Barkil-Oteo, & Kirmayer, 2016). Situations like this civil war lead to experiences of loss, grief, and disrupted social structures (Thorleifsson, 2014). Accordingly, after their flight, Syrian refugees often report feelings of estrangement, loss of identity, and problems adapting to a foreign community (Moussa, 2014).

As such, it is not surprising that epidemiological studies find elevated mental health problems among Syrian refugees in receiving countries such as Germany and other Western countries (Euteneuer & Schäfer, 2018; Kliem et al., 2016; Richter, Lehfeld, & Niklewski, 2015). This is in line with large epidemiological studies (Al Akash & Boswell, 2014; De Jong, Komproe, & Van Ommeren, 2003; International Rescue Committee, 2018; Mollica et al., 2004; Momartin, Silove, Manicavasagar, & Steel, 2004) and meta-analyses of different refugee groups reporting prevalence rates of about 30 percent for both post-traumatic stress

disorder (PTSD) and depression among refugees (Steel et al., 2009). The prevalence of mental health problems appears to be higher among refugees than in the general population of most receiving countries (e.g., Fazel, Wheeler, & Danesh, 2005). Accordingly, there is great need to promote mental health treatment among refugees affected by displacement and to understand their needs for treatment as an inherent antecedent of prospective integration in the receiving country (see Echterhoff et al., in press).

However, only a projected five percent of the refugees who suffer from mental disorders receive mental health care in Germany (see Bundesweite Arbeitsgemeinschaft der psychosozialen Zentren für Flüchtlinge und Folteropfer (BAfF) [German Network of Rehabilitation Centers for Refugees and Survivors of Torture], 2016; also see Laban, Gernaat, Komproe, & De Jong, 2007; Lamkaddem et al., 2014, for the situation in Europe). This percentage of refugees receiving mental health care is considerably lower than the proportion of German residents in need receiving psychological help (e.g. Nübling et al., 2014). For a large part, administrative, practical, and structural barriers (e.g. asylum status or language barriers; Bischoff et al., 2003) contribute to this lack of mental health care for refugees (Bozorgmehr & Razum, 2015). For instance, the average waiting period for mental health care in Germany for refugees is reportedly up to six months, on average up to two months longer than for German residents in need of therapy (see BAfF, 2016). Extended waiting periods increase levels of suffering and psychological strain in those who need professional help.

However, these structural barriers may not exclusively explain disproportionally low levels of professional psychological treatment of refugees compared to receiving country residents. Interpersonal and intercultural differences between Syrian refugees and residents regarding psychological aspects may add to this disparity, for example, with respect to disclosing psychological problems and attitudes toward professional psychological help-seeking. There are various reasons for not seeking professional help, including anxiety of self-

stigma (Lannin, Guyll, Vogel, & Madon, 2013; Reichert, 2012; Vogel, Wade, & Haake, 2006), shame regarding the occurrence of psychological problems (Leaf, Bruce, & Tischler, 1986), negative stereotypes about mental disorders (Corrigan, 2004), and negative attitudes toward counseling (Pederson & Vogel, 2007). Individuals seeking professional psychological help may be given negative labels such as *insecure, inadequate, inferior, weak*, and *disturbed* (King, Newton, Osterlund, & Baber, 1973; Sibicky & Dovidio, 1986), which constitutes a potential and likely source of shame and embarrassment.

These psychological processes can result in increasingly negative attitudes toward seeking professional psychological help, at least among Westerners (Mackenzie, Erickson, Deane, & Wright, 2014). Previous studies with different ethnic samples, namely Koreans (Yoo, Goh, & Yoon, 2005), South-East Asians (Fung & Wong, 2007), Chinese Australians (Ho, Hunt, & Li, 2008), and comparisons between U.S. and Chinese college students (Chen & Mak, 2008) indicate some intercultural differences and variations regarding attitudes toward professional help-seeking. In these studies, the ethnic minorities reported more negative attitudes towards seeking professional psychological help. This points to psychological barriers toward help-seeking which vary for different cultural groups.

To date, attitudes of members of Middle Eastern populations have been examined less frequently than members of Western populations and systematic empirical studies are still missing (Ciftci, Jones, & Corrigan, 2012; Mackenzie et al., 2014). However, the recent large-scale forced migration of Syrians necessitates the investigation of this population's attitudes toward seeking professional psychological help within this new cultural context. This is paramount because professional help-seeking attitudes are predictive of actual help-seeking behavior (Fischer & Farina, 1995; Lin & Parikh, 1999; Mackenzie et al., 2014), which, in turn, is positively related to mental health improvements (Mojtabai, Evans-Lacko, Schomerus, & Thornicroft, 2016).

In this context, one has to consider that beliefs about the causes of illness, evaluation of treatment and stigmatization are largely socially and culturally constructed (Kleinman, 1980; Lewis-Fernández & Kirmayer, 2019; Link & Phelan, 2001). In Syria, suffering is commonly conceptualized as a part of life that one has to handle, often resulting in very indirect expressions of mental health problems (see Hassan et al., 2015, for a provision of specific idioms that Syrians use to express distress). This may lead to clinical presentations with primarily somatic symptoms as these may be culturally more accepted than mental health problems. Explicitly naming mental health problems as in Western therapy settings may lead to the fear of being labeled as "mad" or "crazy" among Syrians (Hassan et al., 2016), imposing a large social burden upon people who suffer from mental health problems. It is also noteworthy that Syrians seek help by friends and family members and apply coping mechanisms such as withdrawal and passive coping strategies (e.g. Hassan et al., 2016). Other ways in which Syrians cope with mental health problems may be through working, religious practices, or devotion to their families (e.g. Khawaja, White, Schweitzer, & Greenslade, 2008). Furthermore, Syrians' general attitudes toward mental health issues may be reflected in the fact that, even before the outbreak of the civil war, according to the World Health Organization (n.d.), only 70 psychiatrists served a population of 21 million Syrians, and only two public psychiatric hospitals existed. As a result, many Syrian refugees might be unfamiliar with the practice of professional psychological help and may not consider it as an appropriate option to handle psychological stress. In addition, refugees residing in receiving countries face an unknown mental health system (Fassaert et al., 2009; Maier & Straub, 2011), and often report mistrust toward the system of receiving societies (Knudsen, 1995; Turner, 1995; for a review see Ciftci et al., 2012). This mistrust, in turn, may influence attitudes toward psychological help-seeking and may lead refugees to the conviction that they cannot share their distress within this system.

However, the tendency to disclose personally distressing information, and related thoughts and feelings, is highly related to attitudes toward psychological help-seeking. In Western contexts, distress disclosure is positively related to psychological well-being (Barry & Mizrahi, 2005; Cramer, 1999; Hook & Andrews, 2005; Ichiyama et al., 1993; Pennebaker, 1989). Here, it is crucial to disclose distressing information, thoughts, and feelings in a therapeutic setting for diagnosis, treatment processes, and therapy success. Therefore, a higher extent of distress disclosure is related to more positive attitudes toward professional help-seeking (Kelly & Achter, 1995; Komiya, Good, & Sherrod, 2000; Pederson & Vogel, 2007; Vogel et al., 2006; Vogel & Wester, 2003). Moreover, individuals with higher levels of distress disclosure are more likely to actually seek professional psychological help (Cepeda-Benito & Short, 1998). However, as mentioned before, this may not be the preferred way in which Syrians wish to cope with their mental health problems (Hassan et al., 2015). Many Syrian refugees may have been socialized in such a way that they regard overt expressions of distressing feelings as signs of weakness or a lack of character strength (Harvey, Garwood, & El-Masri, 2013). Moreover, the ability of building trust and as a consequence disclosing distress may have been severely compromised by experiences before and during their flight.

Given the complexity of political, social, and individual circumstances, alongside cultural factors, different coping mechanisms, and mistrust in the system among refugees we expected Syrian refugees in Germany to display relatively low levels of distress disclosure in this post-migration context as compared to German residents. Because disclosing distressing feelings and emotions is central in (Western) therapeutic settings, these presumably lower levels of distress disclosure may also, in part, explain the more (predicted) negative attitudes toward psychological help-seeking among Syrians as compared to settled German residents.

The Present Study

Here, we investigated whether Syrian refugees presently residing in a Western country regard professional psychological help as a reasonable option if they have mental health

concerns. To have a comparison and reference point for these estimations, we scrutinized attitudes of refugees presently residing in a Western receiving country toward professional psychological help-seeking in contrast to attitudes held by residents of the receiving society. In the case of the present study, this country is Germany. Moreover, we assessed mental health symptoms of both groups to explore the extent to which they are associated with help-seeking attitudes.

Based on the described empirical, cultural, and theoretical background, (1) we hypothesised that refugees display relatively more negative attitudes toward seeking professional psychological help than residents. Further, (2) we expected that refugees report *less* distress disclosure than residents and (3) predicted that refugees experience more severe psychological distress as compared to residents. Drawing on the aforementioned background, (4) we expected that the relationship between group members and attitudes toward seeking professional psychological help would be mediated by the level of distress disclosure. We predicted *more* negative attitudes from Syrian refugees (vs. German residents) toward professional psychological help-seeking (as in Hypothesis 1), and *less* distress disclosure from Syrian refugees (vs. German residents) (as in Hypothesis 2). We expected a positive relationship between distress disclosure and attitudes toward seeking professional psychological help. Hence, we tested a simple mediation model, which was based on these a priori considerations.

Methods

Participants and Procedure

Initially, 402 individuals (202 German residents and 200 refugees) completed an online questionnaire. Of the 200 refugees, 182 (91%) were Syrians. Because the present study focuses on Syrian refugees, we excluded data from 18 non-Syrian refugees, resulting in a final sample of $N = 384$ respondents. In the German subsample ($M_{age} = 28.13$, $SD = 7.35$), 154 participants self-identified as female, whereas 48 reported to be male. In the Syrian refugee

sample (M_{age} = 25.56, *SD* = 9.19), 36 participants reported to be female and 146 reported to be male. In both samples, no participants self-identified as another gender than female or male. When asked for the reasons why they left their countries, 157 refugees reported war as a reason, 94 named political persecution, 22 religious persecution, 65 violence in their home country, and 25 named economic reasons (multiple reasons could be named). Overall, there were no missing data.

This study is part of a broader investigation addressing health issues in refugees in Germany. In this paper, we report all measures and results that are relevant for the present research questions. The link to our online survey was disseminated via social media (e.g. Facebooks groups like "Syrians in Germany" with approx. 70,000 members) and email (using lists that were acquired through contacts with social workers and volunteers) to refugees and residents in an Arabic and a German version. Data from psychology students and psychologists were excluded from our study because within these groups, a positively biased attitude toward professional psychological help was expected. Furthermore, respondents had to be at least 18 years old to participate. No other data were excluded. All participants provided informed consent. The study was approved by the local ethics committee of the University of Muenster, Germany. We offered 5 Euro as monetary compensation for participation. The German version of the questionnaires was translated into Arabic by a professional translation office. Next, an Arabic native speaker who was also proficient in German back-translated the Arabic versions of the questionnaires into German and compared them with the German sources of the first translations. Two small changes to the Arabic versions provided by the translation agency were applied following this back-translation procedure.

Measures

Attitudes toward seeking professional psychological help. We assessed our central dependent variable by using the short version of the *Attitudes Toward Seeking Professional*

Psychological Help-Scale (ATSPPH-S; Fischer & Farina, 1995), which was revised to increase its cross-cultural validity (Ang, Lau, Tan, & Lim, 2007). The adapted version of the ATSPPH-S comprises nine items with satisfactory internal consistency, also in the German version (Coppens et al., 2013). The items were rated on a scale ranging from 1 (*disagree*) to 4 (*agree*). An example item is "If I believed I was having a mental breakdown, my first inclination would be to get professional attention."

Initial analysis of this scale in the refugee sample indicated poor internal consistency, $\alpha = .55$. As such, we suspected that this scale does not adequately represent help-seeking attitudes among Syrian refugees and, therefore, ran an Exploratory Factor Analysis (EFA). The scree-plot and parallel analysis (Horn, 1965) suggested a two-factorial solution for refugees. EFA of the data as suggested by these procedures was then conducted using oblique promax rotation. The first factor explained 20% of the variance (eigenvalue of 1.81) and included four items, all loadings > .40, whereas the second factor explained 11% of the variance (eigenvalue of 1.03), and also comprised four items, all loadings > .25. One item did not load on any of the two factors. The first factor consisted of all items that were positively coded, whereas the second factor comprised items that were initially negatively coded. As the first factor displayed good factor loadings, explained variance, and satisfying internal consistency ($\alpha = .73$), in contrast to the second factor ($\alpha = .53$), we suspected a bias in refugees' responses to these negatively stated items. Importantly, also for the German subsample, the internal consistency increased from $\alpha = .70$ for the overall scale to $\alpha = .72$ for the scale reduced to four items.[1] As a consequence, we removed the other items from our analyses and continued with the following items (numbers in parentheses represent the item's position in the original questionnaire): (1) *Would obtain professional help if having a mental breakdown*, (2) *Would find relief in psychotherapy if in emotional crisis*, (5) *Would obtain psychological help if upset for a long time*, and (6) *Might want counseling in the future.* This is in line with a validation study that found two different factors for the scale in which the

four items we used here loaded on one factor called *Openness to Seeking Treatment for Emotional Problems* (Elhai, Schweinle, & Anderson, 2008). The two factors reported by Elhai et al. (2008) described the scale better than the initial one-factorial solution. Additionally, prior research demonstrated that reverse-worded items in general often led to inattention and confusion and did not decrease response bias (Van Sonderen, Sanderman, & Coyne, 2013). Altogether, this factorial solution with four items provides good face validity alongside reasonable psychometric properties, so that the construct appears to be assessed in the best possible way with these four items.

Distress disclosure. We applied the *Distress Disclosure Index* (DDI; Kahn & Hessling, 2001) to measure the tendency of participants to disclose unpleasant, stressful feelings (distress disclosure). The DDI consists of twelve items on scales ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). High scores on the DDI scale indicate a high level of willingness to share distressing feelings and thoughts openly with others. An example item is "When I feel upset, I usually confide in my friends." The DDI is a psychometrically sound instrument that has been used in many studies (see Kahn, Hucke, Bradley, Glinski, & Malak, 2012 for a review), also in German samples (Drabek, 2010). In the present study, the DDI displayed good internal consistencies ($\alpha_{residents} = .94$; $\alpha_{refugees} = .88$).

Depressive and somatic symptoms. For an approximation of distress in the form of depressive and somatic symptoms, we employed the subscales PHQ-9 and PHQ-15 of the adapted German version of the *Patient Health Questionnaire-D* (PHQ-D; Gräfe, Zipfel, Herzog, & Löwe, 2004). There is sufficient evidence for good reliability and validity of the German versions of the PHQ (Martin, Rief, Klaiberg, & Braehler, 2006).

The PHQ-15 (somatic symptoms), consists of 15 items of which we used only 13 because two items (*Feeling tired or having low energy*; *Trouble sleeping*) are also part of PHQ-9. The items of the PHQ-15 were rated on a 3-point scale incorporating *Not bothered at all* (0), *Bothered a little* (1), and *Bothered a lot* (2).

In the PHQ-9, respondents indicate how often they experience negative consequences of depressive symptoms on nine items. Scale anchors were *Not at all* (0), *Several days* (1), *More than half the days* (2), and *Nearly every day* (3). The PHQ-15 ($\alpha_{residents}$ = .86; $\alpha_{refugees}$ = .88) and PHQ-9 ($\alpha_{residents}$ = .70; $\alpha_{refugees}$ = .81) showed acceptable to good internal consistencies in the present study.

Functional impairment. To assess general functional impairment, we used one more item of the PHQ-D (*If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?*). Participants responded to this item on a scale from 1 (*not difficult at all*) to 4 (*extremely difficult*).

Results

Analyses were performed in R (R Core Team, 2017). We conducted a multivariate analysis of covariance (MANCOVA) to examine differences between Syrian refugees and German residents. Dependent variables in the MANCOVA were attitudes toward seeking professional psychological help, distress disclosure, depressive symptoms, somatic symptoms, and functional impairment. As participants' self-reported gender was unequally distributed across groups, $\chi^2(1, N = 384) = 119.83$, $p < .001$ (Syrian refugees were predominantly male, whereas residents were predominantly female), the factor gender was included as covariate in our analyses (see also Addis & Mahalik, 2003). Univariate tests were conducted using Bonferroni adjusted alpha levels by dividing the initial alpha level ($\alpha = .05$) by the number of conducted comparisons, $\alpha_{adjusted} = .05/5 = .01$. Subsequently, we tested the mediation model described above to investigate whether higher levels of distress disclosure mediate the effect of more negative attitudes toward psychological help seeking by Syrian refugees versus German residents. To test whether a potential indirect effect (i.e. mediation) was statistically significantly different from zero, we generated nonparametric confidence intervals (CIs) using a bootstrap resampling procedure, as recommended by Preacher and Hayes (2008). In

accordance with recommendations from Hayes (2015), we applied 10,000 bootstrap resamples to estimate CIs for the assessment of the indirect effect using the mediation package in R (Tingley, Yamamoto, Hirose, Keele, & Imai, 2014).

The overall MANCOVA was significant, Pillai's Trace = .40, $F(1, 381) = 50.96$, $p < .001$, $\eta_p^2 = .34$. A univariate examination of the included variables indicated a significant effect of group on attitudes toward psychological help seeking, $F(1, 381) = 7.00$, $p < .001$, $\eta_p^2 = .03$, where Syrian refugees ($M = 2.57$, $SD = 0.57$) scored lower on the ATSPPH-S than German residents ($M = 2.84$, $SD = 0.69$). Moreover, we found a significant effect on distress disclosure, $F(1, 381) = 22.57$, $p < .001$, $\eta_p^2 = .11$. Syrian refugees ($M = 2.89$, $SD = 0.77$) reported less distress disclosure than German residents ($M = 3.47$, $SD = 0.87$). Another significant effect was found for depressive symptoms, $F(1, 381) = 9.91$, $p = .003$, $\eta_p^2 = .02$. Syrian refugees ($M = 11.05$, $SD = 6.49$) displayed more depressive symptoms than German residents ($M = 7.16$, $SD = 5.38$). Levels of functional impairment also differed significantly between groups, $F(1, 381) = 221.24$, $p < .001$, $\eta_p^2 = .37$, with Syrian refugees ($M = 3.05$, $SD = 0.98$) displaying higher levels than German residents ($M = 1.71$, $SD = 0.78$). There were no differences in somatic symptoms between Syrian refugees ($M = 5.96$, $SD = 3.68$) and German residents ($M = 5.94$, $SD = 3.61$), $F(1, 381) = 0.01$, $p = .927$, $\eta_p^2 = .00$.

Mediation Model

The total effect (C') of the mediation model (see Figure 1) was significant $b = -0.27$, $SE = 0.07$, 95 % CI = [−0.42; −0.13], $p < .001$. The direct effect (C) of group on attitudes remained statistically significant ($b = -0.17$, $SE = 0.08$, 95 % CI = [−0.32; −0.02], $p = .031$), but was considerably reduced when distress disclosure was also considered in the model. The indirect effect (A*B effect) of our model was significantly different from zero, $b = -0.10$, $SE = 0.03$, 95 % CI = [−0.16; −0.05], $p < .001$, indicating that distress disclosure partially mediated the relationship between group and attitudes toward psychological help seeking.

This partial mediation (A*B effect) remained significant when controlling for gender, $b = -0.08$, $SE = 0.03$, 95 % CI [−0.14; −0.03], $p = .002$.

[Figure 1 near here]

Discussion

The central finding from our study is that, as predicted, Syrian refugees display relatively more negative attitudes toward seeking professional psychological help compared to residents. To the best of our knowledge, this is the first study conducted in a Western country that investigated differences in professional help seeking attitudes between residents and Syrian refugees. From a public health perspective, the present study demonstrates that despite higher levels of depressive symptoms and functional impairment (confirmed here in accordance with previous findings of higher prevalence rates and greater severity of mental disorders among refugees; Richter et al., 2015), Syrian refugees display more negative attitudes toward seeking professional psychological help than residents. In other words, individuals who are more in need reported more negative attitudes toward seeking professional psychological help, despite distress usually predicting actual help-seeking behavior (Cramer, 1999). One possible explanation for these differences might be that Syrian refugees regard other options such as handling distress through silence, seeking help by friends, working, withdrawal, religious practices, or devotion to their families as more appropriate means to cope with mental health problem than Western psychological help (e.g. Khawaja et al., 2008).

To put this interpretation in context, it is to note that we have assessed symptoms on scales mainly constructed for Western populations, which may potentially restrict their validity. This means, for instance, that even if we identify psychiatric symptoms among Syrian refugees, these symptoms may simply not have the same relevance and/or meaning for Syrian refugees (see Kleinman, 1988 for common pitfalls of cross-cultural research). Given that Syrians have specific idioms that represent psychological distress (Hassan et al., 2015),

the assessment of those may provide more insight into the potential mismatch between psychological distress and help-seeking attitudes. Applying other categories of mental distress may lead to different results, and in these categories, Syrian refugees who are suffering from mental distress may be willing to seek professional help.

To understand the mismatch that occurred on the scales used in this study better, we included distress disclosure as a potential mechanism of group differences between refugees and members of the receiving society toward seeking professional psychological help. Syrian refugees reported a lower tendency to disclose personally distressing information, thoughts, and feelings than residents. This is in line with the notion that Syrians express symptoms in a more indirect way than Westerners and regard coping options such as withdrawal as an appropriate way to deal with mental health problems (Hassan et al., 2015). Moreover, Syrian refugees may fear a lack of confidentiality when they disclose very personal experiences (Ciftci et al., 2012), which may be even more pronounced when they have to work with practitioners from an unknown culture.

Lower levels of distress disclosure mediated group differences between Syrian refugees and residents toward professional psychological help seeking to a large part. This finding is consistent with studies indicating that distress disclosure is positively associated with well-being and attitudes toward professional help-seeking in Western countries (Barry & Mizrahi, 2005; Cramer, 1999; Hook & Andrews, 2005; Ichiyama et al., 1993; Kahn et al., 2012; Pennebaker, 1989). Syrian refugees may display more negative attitudes toward psychological help seeking because they fear that they have to disclose all their distressing feelings, which, in turn, may cause higher levels of discomfort, and increase subjective insecurity.

Cultural idiosyncrasies may affect the interpretation of a sensation or the perceived severity of a potential symptom, and how an individual evaluates the need of seeking professional help (Hay, 2008; Saint Arnault, 2009). Due to potentially imposed norms, Syrian

refugees may not see the necessity to disclose distress when they may not interpret these levels of distress to be worth talking about. For instance, having mental health problems and communicating those openly may be seen as weakness or a lack of character strength (Khawaja et al., 2008). Additionally, the expression of distress may be encapsulated in the present context in which the intensity and content of emotional expressions are determined (Kirmayer, 1989). It might well be that Syrian refugees display low levels of distress disclosure because of mistrust in the system or as a result of experiences before or during their flight. These experiences may have led to patterns of disturbed trust among Syrian refugees. In this context, the disclosure of distress may be perceived as rather harmful. However, this may change as a function of time once refugees' acculturation in the host society progresses.

Limitations

First, due to our online recruitment, we cannot be certain about representativeness in our study. However, as the recruitment of Syrian refugees, currently residing in Germany, for a study with a focus on mental health issues is particularly difficult, the present sample size should be considered as at least reasonably large. There was a substantial difference in the gender distribution in the samples of Syrian refugees versus residents. Although group differences in professional help-seeking attitudes remained significant when controlling for gender, further research should address gender norms in refugee populations and adherence to such norms as these factors are generally associated with lower utilization of professional psychological help (Heath, Brenner, Vogel, Lannin, & Strass, 2017; Mackenzie, Gekoski, & Knox, 2006). For future studies, it would also be desirable to recruit groups of refugees and residents with comparable gender distributions. To put these limitations in perspective, the sample of predominantly male Syrian refugees is representative of the age and gender distribution among Syrian refugees entering Germany since 2015 (Juran & Broer, 2017) and as such important to investigate.

Second, our research design was cross-sectional instead of longitudinal. Multiple assessments would enable longitudinal mediation modelling that is more conclusive than a cross-sectional mediational model (MacKinnon & Fairchild, 2009; MacKinnon, Fairchild, & Fritz, 2007). The present study's pathway of the variables should thus be interpreted with caution because it is based on theoretical considerations guided by and extracted from the existing literature.

Third, our study is based on self-report measures that were translated into Arabic for the refugee subsample. It is at least debatable with regard to reliability and validity whether one can uniformly apply translated versions of existing questionnaires to refugees with a different cultural background. However, internal consistencies, distributions, and other measurable outcomes of the scales used in the present study yielded at least satisfactory values (Schmitt, 1996). Of course, to obtain better psychometric properties in terms of reliability and validity, culturally adaptive validation studies are desirable for the future. However, as distress disclosure was related to professional help-seeking attitudes in accordance with the existing literature alongside satisfying psychometrics in our study, we believe that important conclusions can be validly drawn from the present results and we derive implications for research and practice.

Implications for Practice, Advocacy, Education/Training, and Research

Attitudes toward psychological help seeking and the disclosure of distress may be embedded in many of the factors mentioned before, from practical constraints such as language barriers (Bischoff et al., 2003) to the different aspects of mental health stigma (e.g. Vogel et al., 2006). For instance, language barriers may impose more obstacles toward the disclosure of distressing information, as these are two potential sources of shame and misunderstanding. Likewise, stigma of mental health problems especially in the face of an unknown culture and unknown administrative practices in the receiving country may lead to less distress disclosure. Therefore, studies need to disentangle these effects, ideally from a

longitudinal vantage point. This would allow (a) testing pathways by which these variables lead to more negative attitudes and (b) investigating whether distress disclosure and attitudes toward help seeking vary as a function of time. This research line, then, may help inform intervention studies identifying processes that may encourage refugees to ask for help if they experience mental health problems.

Focusing on distress disclosure may be one important aspect in future intervention studies because higher levels of distress disclosure predicted more positive attitudes toward psychological help-seeking. However, not all refugees will disclose their mental health problems openly, many will instead keep their cultural ways of copings. Therefore, it is important that practitioners and researchers aim to understand cultural idioms and representations of distress among refugees better to ensure that the right categories of mental health problems can be addressed. Practitioners may have to be trained in understanding more indirect expressions of distress. In addition, healing of mental illness across cultures does not necessarily always involve sharing of emotional vulnerability. For example, many Syrian refugees consider religious or other culturally specific rituals as appropriate ways of healing (e.g. Dein, & Illaiee, 2013). By considering these perspectives, we may reach ways of promoting help seeking behavior and mental health among Syrian refugees that are culturally more appropriate and lead to more trust in the health care system of the receiving country.

In this regard, psychoeducation in both directions, that is, toward practitioners and Syrian refugees, could be essential (see Gavranidou & Abdallah-Steinkopff, 2007). Here, it could be particularly helpful to promote culturally adapted treatments (e.g. Benish, Quintana, & Wampold, 2011; Huey, Tilley, Jones, & Smith, 2014) in order to create a better fit between Western psychotherapy and the need of Syrian refugees. Increasing this fit seems vitally important as ethnic minorities benefit less from traditional Western psychotherapy than members of the (Western) ethnic majority (for a review see Bohart & Wade, 2013).

Conclusion

Our study sheds light on the scope of relatively negative attitudes toward seeking professional psychological help among Syrian refugees who fled to a Western country. Because these refugees are at considerably high risk of having to deal with mental health issues (Fazel et al., 2005) it is crucial to gain a thorough understanding of how underlying mechanisms of their reservations against seeking professional help may work. The present study identified distress disclosure as a mediating factor. Overall, it is of paramount importance to raise awareness of common mental health problems among the recent refugee population and to encourage research about culturally adapted treatments. This is not only of particular importance for integration processes (Schick et al., 2016), but first and foremost essential to help individual refugees who are suffering from mental health concerns.

References

Addis, M. E., & Mahalik, J. R. (2003). Men, masculinity, and the contexts of help seeking. *American Psychologist*, *58*(1), 5-14. https://doi.org/10.1037/0003-066X.58.1.5

Al Akash, R., & Boswell, K (2014). Listening to the voices of Syrian women refugees in Jordan: Ethnographies of displacement and emplacement. *In Conference Paper – Refugee Voices 2014 Refugee Studies Centre (Rsc) Oxford.*

Ang, R. P., Lau, S., Tan, A.-G., & Lim, K. M. (2007). Refining the attitudes toward seeking professional psychological help scale. *Measurement and Evaluation in Counseling and Development*, *40*(3), 130–141. https://doi.org/10.1080/07481756.2007.11909810

Barry, D. T., & Mizrahi, T. C. (2005). Guarded self-disclosure predicts psychological distress and willingness to use psychological services among East Asian immigrants in the United States. *The Journal of Nervous and Mental Disease*, *193*(8), 535–539. https://doi.org/10.1097/01.nmd.0000172642.23147.23

Benish, S. G., Quintana, S., & Wampold, B. E. (2011). Culturally adapted psychotherapy and the legitimacy of myth: a direct-comparison meta-analysis. *Journal of Counseling Psychology*, *58*(3), 279–289. https://doi.org/10.1037/a0023626

Bischoff, A., Bovier, P. A., Isah, R., Françoise, G., Ariel, E., & Louis, L. (2003). Language barriers between nurses and asylum seekers: their impact on symptom reporting and referral. *Social Science & Medicine, 57*(3), 503-512. https://doi.org/10.1016/S0277-9536(02)00376-3

Bohart, A. C., & Wade, A. G. (2013). The client in psychotherapy. *Bergin and Garfield's handbook of psychotherapy and behavior change*, *6*, 219-257.

Bozorgmehr, K., & Razum, O. (2015). Effect of restricting access to health care on health expenditures among asylum-seekers and refugees: A quasi-experimental study in

Germany, 1994–2013. *PLOS ONE*, *10*(7), e0131483. https://doi.org/10.1371/journal.pone.0131483

Bundesweite Arbeitsgemeinschaft der psychosozialen Zentren für Flüchtlinge und Folteropfer (BafF e.V) [German Network of Rehabilitation Centres for Refugees and Survivors of Torture]. (2016). *Versorgungsbericht zur psychosozialen Versorgung von Flüchtlingen und Folteropfern in Deutschland (3. Auflage) [Report on the Psychosocial Care of Refugees and Torture Victims in Germany (3rd edition)]*. http://www.baff-zentren.org/wp-content/uploads/2017/02/Versorgungsbericht_3-Auflage_BAfF.pdf

Cepeda-Benito, A., & Short, P. (1998). Self-concealment, avoidance of psychological services, and perceived likelihood of seeking professional help. *Journal of Counseling Psychology*, *45*(1), 58-64. https://doi.org/10.1037/0022-0167.45.1.58

Chen, S. X., & Mak, W. W. S. (2008). Seeking professional help: Etiology beliefs about mental illness across cultures. *Journal of Counseling Psychology*, *55*(4), 442–450. https://doi.org/10.1037/a0012898

Ciftci, A., Jones, N., & Corrigan, P. W. (2012). Mental health stigma in the Muslim community. *Journal of Muslim Mental Health*, *7*(1), 17-32. http://dx.doi.org/10.3998/jmmh.10381607.0007.102

Coppens, E., Van Audenhove, C., Scheerder, G., Arensman, E., Coffey, C., Costa, S., ... & Postuvan, V. (2013). Public attitudes toward depression and help-seeking in four European countries baseline survey prior to the OSPI-Europe intervention. *Journal of affective disorders*, *150*(2), 320-329. https://doi.org/10.1016/j.jad.2013.04.013

Corrigan, P. (2004). How stigma interferes with mental health care. *American Psychologist*, *59*(7), 614-625. https://doi.org/10.1037/0003-066X.59.7.614

Cramer, K. M. (1999). Psychological antecedents to help-seeking behavior: A reanalysis using path modeling structures. *Journal of Counseling Psychology*, *46*(3), 381-387. https://doi.org/10.1037/0022-0167.46.3.381

Dein, S., & Illaiee, A. S. (2013). Jinn and mental health: looking at jinn possession in modern psychiatric practice. *The Psychiatrist*, *37*(9), 290-293. https://doi.org/10.1192/pb.bp.113.042721

De Jong, J. T., Komproe, I. H., & Van Ommeren, M. (2003). Common mental disorders in postconflict settings. *The Lancet*, *361*(9375), 2128-2130. https://doi.org/10.1016/S0140-6736(03)13692-6

Drabek, A. (2010). *Determinanten der Inanspruchnahme sozialer sowie professioneller psychologischer Unterstützung von Justizwachebeamten im österreichischen Strafvollzug.* Unpublished doctoral dissertation. University of Vienna, Austria.

Echterhoff, G., Hellmann, J. H., Back, M. D., Kärtner, J., Morina, N., & Hertel, G. (in press). Psychological antecedents of refugee integration (PARI). *Perspectives in Psychological Science.*

Elhai, J. D., Schweinle, W., & Anderson, S. M. (2008). Reliability and validity of the attitudes toward seeking professional psychological help scale-short form. *Psychiatry Research*, *159*(3), 320-329. https://doi.org/10.1016/j.psychres.2007.04.020

Euteneuer, F., & Schäfer, S. J. (2018). Brief report: subjective social mobility and depressive symptoms in Syrian refugees to Germany. *Journal of immigrant and Minority Health*, *20*(6), 1533-1536. https://doi.org/10.1007/s10903-018-0692-y

Fassaert, T., de Wit, M. A., Tuinebreijer, W. C., Verhoeff, A. P., Beekman, A. T., & Dekker, J. (2009). Perceived need for mental health care among non-western labour migrants. *Social Psychiatry and Psychiatric Epidemiology*, *44*(3), 208-216. https://doi.org/10.1007/s00127-008-0418-x

Fazel, M., Wheeler, J., & Danesh, J. (2005). Prevalence of serious mental disorder in 7000 refugees resettled in Western countries: A systematic review. *The Lancet*, *365*(9467), 1309–1314. https://doi.org/10.1016/S0140-6736(05)61027-6

Fischer, E. H., & Farina, A. (1995). Attitudes toward seeking professional psychological help: A shortened form and considerations for research. *Journal of College Student Development, 36*(4), 368-373.

Fung, K., & Wong, Y.-L. R. (2007). Factors influencing attitudes toward seeking professional help among East and Southeast Asian immigrant and refugee women. *The International Journal of Social Psychiatry*, *53*(3), 216–231. https://doi.org/10.1177/0020764006074541

Gavranidou, M., & Abdallah-Steinkopff, B. (2007). Brauchen Migrantinnen und Migranten eine andere Psychotherapie. *Psychotherapeutenjournal*, *4*, 353-361.

Gräfe, K., Zipfel, S., Herzog, W., & Löwe, B. (2004). Screening psychischer Störungen mit dem "Gesundheitsfragebogen für Patienten (PHQ-D)" [Screening of psychiatric disorders with the Patient Health Questionnaire (PHQ-D)]. *Diagnostica*, *50*(4), 171–181. https://doi.org/10.1026/0012-1924.50.4.171

Harvey, C., Garwood, R., & El-Masri, R. (2013). *Shifting sands: Changing gender roles among refugees in Lebanon*. Oxfam International.

Hassan, G., Kirmayer, L. J., Mekki-Berrada, A., Quosh, C., El Chammay, R., Deville-Stoetzel, J. B., ... & Song, S. (2015). *Culture, context and the mental health and psychosocial wellbeing of Syrians: A review for mental health and psychosocial support staff working with Syrians affected by armed conflict*. Geneva, Switzerland: UNHCR.

Hassan, G., Ventevogel, P., Jefee-Bahloul, H., Barkil-Oteo, A., & Kirmayer, L. J. (2016). Mental health and psychosocial wellbeing of Syrians affected by armed conflict.

Epidemiology and Psychiatric Sciences, *25*(2), 129–141. https://doi.org/10.1017/S2045796016000044

Hay, M. C. (2008). Reading sensations: Understanding the process of distinguishing 'fine' from 'sick'. *Transcultural Psychiatry, 45*(2), 198–229. https://doi.org/10.1177/1363461508089765

Hayes, A. F. (2015). An index and test of linear moderated mediation. *Multivariate Behavioral Research, 50*(1), 1-22. https://doi.org/10.1080/00273171.2014.962683

Heath, P. J., Brenner, R. E., Vogel, D. L., Lannin, D. G., & Strass, H. A. (2017). Masculinity and barriers to seeking counseling: The buffering role of self-compassion. *Journal of Counseling Psychology*, *64*(1), 94–103. https://doi.org/10.1037/cou0000185

Ho, K. P., Hunt, C., & Li, S. (2008). Patterns of help-seeking behavior for anxiety disorders among the Chinese speaking Australian community. *Social Psychiatry and Psychiatric Epidemiology*, *43*(11), 872-877. https://doi.org/10.1007/s00127-008-0387-0

Hook, A., & Andrews, B. (2005). The relationship of non-disclosure in therapy to shame and depression. *The British Journal of Clinical Psychology*, *44*(3), 425–438. https://doi.org/10.1348/014466505X34165

Horn, J. L. (1965). A rationale and test for the number of factors in factor analysis. *Psychometrika*, 32, 179-185. https://doi.org/10.1007/BF02289447

Huey, S. J., Tilley, J. L., Jones, E. O., & Smith, C. A. (2014). The contribution of cultural competence to evidence-based care for ethnically diverse populations. *Annual Review of Clinical Psychology*, *10*, 305–338. https://doi.org/10.1146/annurev-clinpsy-032813-153729

Ichiyama, M. A., Colbert, D., Laramore, H., Heim, M., Carone, K., & Schmidt, J. (1993). Self-concealment and correlates of adjustment in college students. *Journal of College Student Psychotherapy, 7*(4), 55-68. . https://doi.org/10.1300/J035v07n04_05

International Rescue Committee (IRC). (n.d.). Retrieved September 2, 2019, from https://www.rescue.org/

Juran, S., & Broer, P. N. (2017). A Profile of Germany's Refugee Populations. *Population and Development Review*, *43*(1), 149–157. https://doi.org/10.1111/padr.12042

Kahn, J. H., & Hessling, R. M. (2001). Measuring the tendency to conceal versus disclose psychological distress. *Journal of Social and Clinical Psychology*, *20*(1), 41–65. https://doi.org/10.1521/jscp.20.1.41.22254

Kahn, J. H., Hucke, B. E., Bradley, A. M., Glinski, A. J., & Malak, B. L. (2012). The Distress Disclosure Index: A research review and multitrait–multimethod examination. *Journal of Counseling Psychology, 59*(1), 134-149. https://doi.org/10.1037/a0025716

Kelly, A. E., & Achter, J. A. (1995). Self-concealment and attitudes toward counseling in university students. *Journal of Counseling Psychology*, *42*(1), 40–46. https://doi.org/10.1037/0022-0167.42.1.40

Khawaja, N. G., White, K. M., Schweitzer, R., & Greenslade, J. (2008). Difficulties and coping strategies of Sudanese refugees: A qualitative approach. *Transcultural Psychiatry*, *45*(3), 489-512. https://doi.org/10.1177/1363461508094678

King, P. T., Newton, F., Osterlund, B., & Baber, B. (1973). A counseling center studies itself. *Journal of College Student Personnel*, *14*(4), 338–344.

Kirmayer, L. J. (1989). Cultural variations in the response to psychiatric disorders and emotional distress. *Social Science & Medicine*, *29*(3), 327-339. https://doi.org/10.1016/0277-9536(89)90281-5

Kleinman, A. (1980). *Patients and healers in the context of culture: An exploration of the borderland between anthropology, medicine, and psychiatry (Vol. 3).* Berkeley, CA: University of California Press.

Kleinman, A. (1988). *Rethinking psychiatry: From cultural category to personal experience.* New York, NY: Free Press.

Kliem, S., Mößle, T., Klatt, T., Fleischer, S., Kudlacek, D., Kröger, C., ... & Wiltink, J. (2016). Psychometrische Prüfung einer Hocharabischen Übersetzung des PHQ-4 anhand einer repräsentativen Befragung syrischer Geflüchteter. *PPmP-Psychotherapie· Psychosomatik· Medizinische Psychologie*, *66*(09/10), 385-392. https:// 10.1055/s-0042-114775

Knudsen, J. C. (1995). When trust is on trial: Negotiating refugee narratives. In E. V. Daniel & J. C. Knudsen (Eds.), *Mistrusting Refugees* (pp. 13–55). Berkely, CA: University of California Press.

Komiya, N., Good, G. E., & Sherrod, N. B. (2000). Emotional openness as a predictor of college students' attitudes toward seeking psychological help. *Journal of Counseling Psychology*, *47*(1), 138-143. https://doi.org/10.1037/0022-0167.47.1.138

Laban, C. J., Gernaat, H. B. P. E., Komproe, I. H., & De Jong, J. T. V. M. (2007). Prevalence and predictors of health service use among Iraqi asylum seekers in the Netherlands. *Social Psychiatry and Psychiatric Epidemiology*, *42*(10), 837–844. https://doi.org/10.1007/s00127-007-0240-x

Lamkaddem, M., Stronks, K., Devillé, W. D., Olff, M., Gerritsen, A. A., & Essink-Bot, M. L. (2014). Course of post-traumatic stress disorder and health care utilisation among resettled refugees in the Netherlands. *BMC Psychiatry*, *14*(1), 90-97. https://doi.org/10.1186/1471-244X-14-90

Lannin, D. G., Guyll, M., Vogel, D. L., & Madon, S. (2013). Reducing the stigma associated with seeking psychotherapy through self-affirmation. *Journal of Counseling Psychology*, *60*(4), 508–519. https://doi.org/10.1037/a0033789

Leaf, P. J., Bruce, M. L., & Tischler, G. L. (1986). The differential effect of attitudes on the use of mental health services. *Social Psychiatry. Sozialpsychiatrie. Psychiatrie Sociale*, *21*(4), 187–192. https://doi.org/10.1007/BF00583999

Lewis-Fernández, R., & Kirmayer, L. J. (2019). Cultural concepts of distress and psychiatric disorders: Understanding symptom experience and expression in context. *Transcultural Psychiatry*, *56*(4), 786-803. https://doi.org/10.1177/1363461519861795

Lin, E., & Parikh, S. V. (1999). Sociodemographic, clinical, and attitudinal characteristics of the untreated depressed in Ontario. *Journal of Affective Disorders*, *53*(2), 153–162. https://doi.org/10.1016/S0165-0327(98)00116-5

Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, *27*(1), 363-385. https://doi.org/10.1146/annurev.soc.27.1.363

Mackenzie, C. S., Erickson, J., Deane, F. P., & Wright, M. (2014). Changes in attitudes toward seeking mental health services: A 40-year cross-temporal meta-analysis. *Clinical Psychology Review*, *34*(2), 99–106. https://doi.org/10.1016/j.cpr.2013.12.001

Mackenzie, C. S., Gekoski, W. L., & Knox, V. J. (2006). Age, gender, and the underutilization of mental health services: the influence of help-seeking attitudes. *Aging and Mental Health*, *10*(6), 574-582. https://doi.org/10.1080/13607860600641200

MacKinnon, D. P., & Fairchild, A. J. (2009). Current directions in mediation analysis. *Current Directions in Psychological Science*, *18*(1), 16-20. https://doi.org/10.1111/j.1467-8721.2009.01598.x

MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology*, *58*, 593–614. https://doi.org/10.1146/annurev.psych.58.110405.085542

Maier, T., & Straub, M. (2011). "My head is like a bag full of rubbish": Concepts of illness and treatment expectations in traumatized migrants. *Qualitative Health Research*, *21*(2), 233–248. https://doi.org/10.1177/1049732310383867

Martin, A., Rief, W., Klaiberg, A., & Braehler, E. (2006). Validity of the brief patient health questionnaire mood scale (PHQ-9) in the general population. *General Hospital Psychiatry*, *28*(1), 71-77. https://doi.org/10.1016/j.genhosppsych.2005.07.003

Mojtabai, R., Evans-Lacko, S., Schomerus, G., & Thornicroft, G. (2016). Attitudes toward mental health help seeking as predictors of future help-seeking behavior and use of mental health treatments. *Psychiatric Services*, *67*(6), 650-657. https://doi.org/10.1176/appi.ps.201500164

Mollica, R. F., Cardozo, B. L., Osofsky, H. J., Raphael, B., Ager, A., & Salama, P. (2004). Mental health in complex emergencies. *The Lancet*, *364*(9450), 2058-2067. https://doi.org/10.1016/S0140-6736(04)17519-3

Momartin, S., Silove, D., Manicavasagar, V., & Steel, Z. (2004). Complicated grief in Bosnian refugees: Associations with posttraumatic stress disorder and depression. *Comprehensive Psychiatry*, *45*(6), 475-482. https://doi.org/10.1016/j.comppsych.2004.07.013

Moussa, I. (2014).Identity Crisis in the Syrian Society during the Crisis. Thesis for Executive Master in Psychosocial Support &Dialogue. IOM and Lebanese University: Beirut.

Nübling, R., Bär, T., Jeschke, K., Ochs, M., Sarubin, N., & Schmidt, J. (2014). Versorgung psychisch kranker Erwachsener in Deutschland. Bedarf und Inanspruchnahme sowie Effektivität und Effizienz von Psychotherapie. *Psychotherapeutenjournal, 13*(4), 389-397.

Pederson, L. E., & Vogel, D. (2007). Male gender role conflict and willingness to seek counseling: Testing a mediation model on college-aged men. *Journal of Counseling Psychology*, *54* (4), 373–384. https://doi.org/10.1037/0022-0167.54.4.373

Pennebaker, J. W. (1989). Confession, inhibition, and disease. *Advances in Experimental Social Psychology, 22* (1), 211-244. http://dx.doi.org/10.1016/S0065-2601(08)60309-3

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*(3), 879–891. https://doi.org/10.3758/BRM.40.3.879

Reichert, E. (2012). Reducing stigma barriers to help-seeking behaviors among college students. *Psychology*, *3*(10), 892-898. http://dx.doi.org/10.4236/psych.2012.310134

Richter, K., Lehfeld, H., & Niklewski, G. (2015). Warten auf Asyl: Psychiatrische Diagnosen in der zentralen Aufnahmeeinrichtung in Bayern. [Waiting for asylum: Psychiatric diagnoses in central refugee camps in Bavaria.] *Das Gesundheitswesen [The Public Health Service]*, *77*(11), 834-838. https://10.1055/s-0035-1564075

Saint Arnault, D. (2009). Cultural determinants of help seeking: A model for research and practice. *Research and Theory for Nursing Practice, 23*(4), 259-278. https://10.1891/1541-6577.23.4.259

Schick, M., Zumwald, A., Knöpfli, B., Nickerson, A., Bryant, R. A., Schnyder, U., … Morina, N. (2016). Challenging future, challenging past: The relationship of social integration and psychological impairment in traumatized refugees. *European Journal of Psychotraumatology*, *7*(1), 777-780. https://doi.org/10.3402/ejpt.v7.28057

Schmitt, N. (1996). Uses and abuses of coefficient alpha. *Psychological Assessment*, *8*(4), 350-353. https://doi.org/10.1037/1040-3590.8.4.350

Sibicky, M., & Dovidio, J. F. (1986). Stigma of psychological therapy: Stereotypes, interpersonal reactions, and the self-fulfilling prophecy. *Journal of Counseling Psychology*, *33*(2), 148–154. https://doi.org/10.1037/0022-0167.33.2.148

Steel, Z., Chey, T., Silove, D., Marnane, C., Bryant, R. A., & Van Ommeren, M. (2009). Association of torture and other potentially traumatic events with mental health outcomes among populations exposed to mass conflict and displacement: A systematic review and meta-analysis. *Jama*, *302*(5), 537-549. https://doi.org/10.1001/jama.2009.1132

Team, R. C. (2017). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. 2016.

Thorleifsson, C. (2014). Coping strategies among self-settled Syrians in Lebanon. *Forced Migration Review*, (47), 23-25. https://doi.org/10.1177/1054773817749724

Tingley, D., Yamamoto, T., Hirose, K., Keele, L., & Imai, K. (2014). Mediation: R package for causal mediation analysis. https://doi.org/10.18637/jss.v059.i05

Turner, S. (1995). Torture, refuge and trust. In D. Valentine & J. Knudsen (Eds.), *Mistrusting refugees*. Berkeley, CA: University of California Press.

United Nations High Commissioner for Refugees (2018). Refugees, figures at a glance. Retrieved October 2, 2018, from http://www.unhcr.org/figures-at-a-glance.html

Van Sonderen, E., Sanderman, R., & Coyne, J. C. (2013). Ineffectiveness of reverse wording of questionnaire items: Let's learn from cows in the rain. *PloS one*, *8*(7) https://doi.org/10.1371/journal.pone.0068967

Vogel, D. L., Wade, N. G., & Haake, S. (2006). Measuring the self-stigma associated with seeking psychological help. *Journal of Counseling Psychology*, *53*(3), 325–337. https://doi.org/10.1037/0022-0167.50.3.351

Vogel, D. L., & Wester, S. R. (2003). To seek help or not to seek help: The risks of self-disclosure. *Journal of Counseling Psychology*, *50*(3), 351–361. https://doi.org/10.1037/0022-0167.50.3.351

World Health Organization (n.d.). Mental health care in Syria: Another casualty of war. Retrieved from http://www.emro.who.int/syr/syria-news/mental-health-care-in-syria-another-casualty-of-war.html

Yoo, S. K., Goh, M., & Yoon, E. (2005). Psychological and cultural influences on Koreans' help-seeking attitudes. *Journal of Mental Health Counseling*, *27*(3), 266-281. https://doi.org/10.17744/mehc.27.3.9kh5v6rec36egxlv

Footnote

[1] We also conducted the analyses with the full scale. The results and the interpretation were basically the same as with the subscale. Although differences between Syrian refugees and German residents were even larger when tested with the entire scale, we believe that the results obtained with the subscale, due to its better psychometric properties, represent a more appropriate estimate of actual group differences.

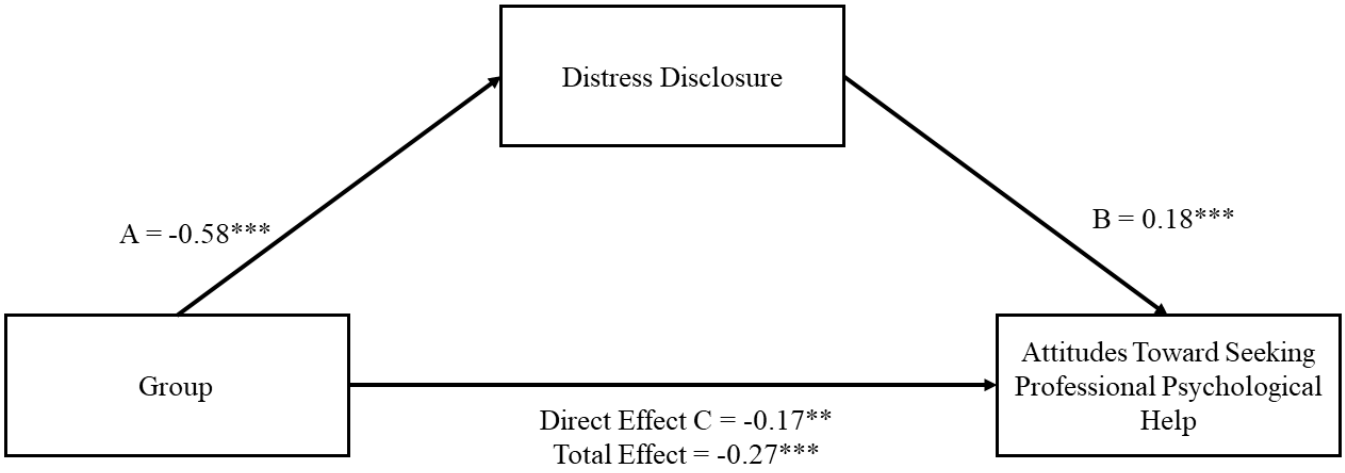

Figure 1. In the group variable, residents are coded with 0, whereas refugees are coded with 1. Indirect effect: A*B = -0.58 * 0.18 = -0.10, total effect C': (A*B) + C = (-0.58 * 0.18) + (-0.17) = -0.27. In accordance with mediation analyses logic, the amount of the total effect is greater than the amount of the direct effect C.

Competing interests

The authors declare that they have no competing interests.